



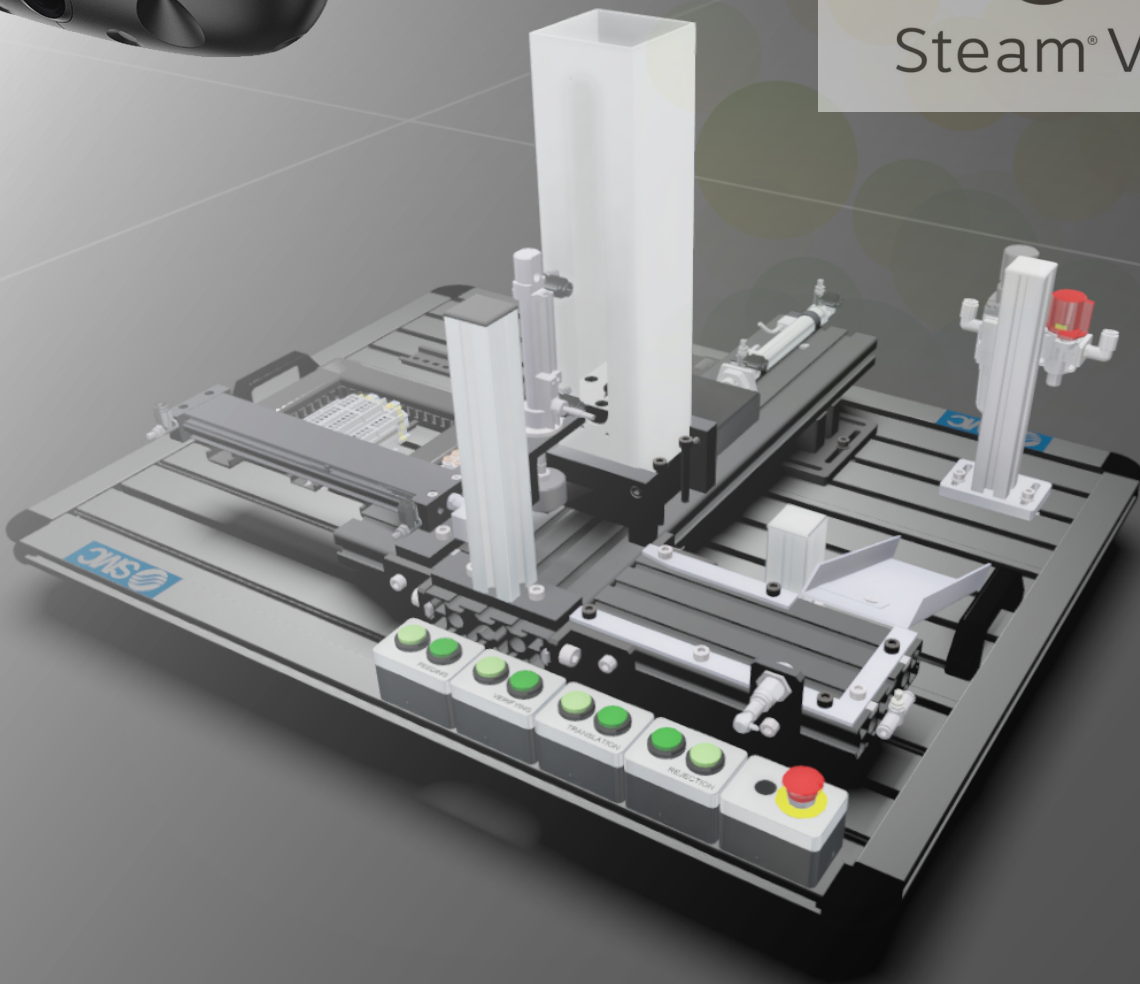
# Virtual Universe Pro 4



Creating powerful 3D simulations of automated systems has never been easier. Users will experience amazing immersive experiences enjoying the best high quality rendering technology supporting virtual reality headsets.



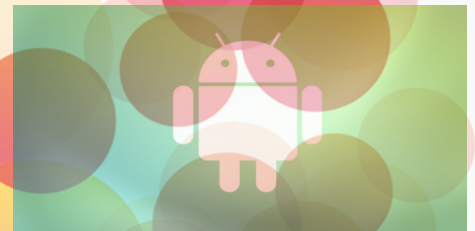
Steam® VR



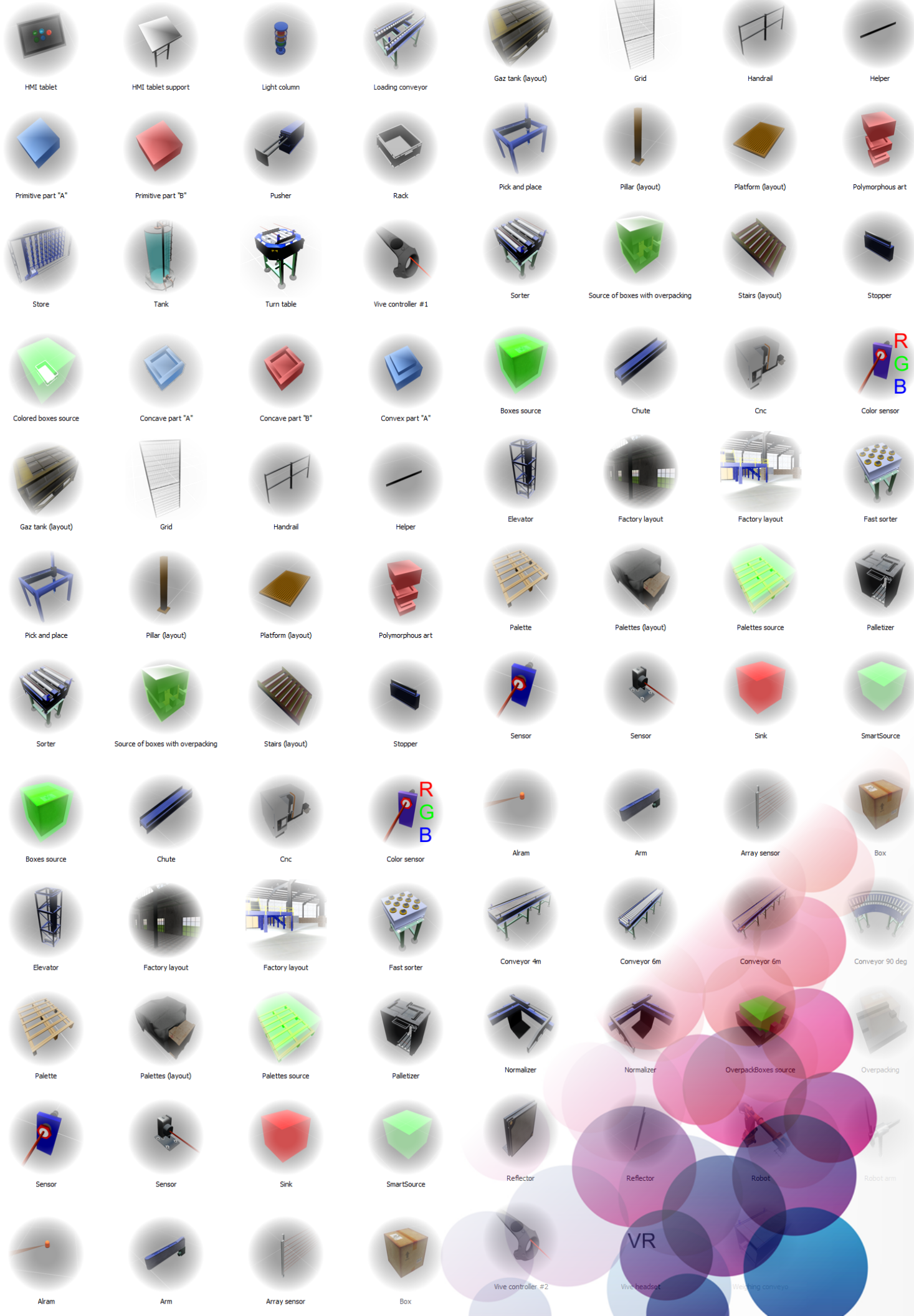
courtesy of SMC Training International

Developing powerful simulations in the cloud places your users in a collaborative environment which enhances their experience beyond anything available before.

Simulations can be accessed from a range of devices including smart-phones, tablets and laptops anywhere in the world.



# More than 60 predefined objects





Drive the simulations with a real PLC\*, an automation workshop\*\* or a virtual controller included in Virtual Universe Pro.

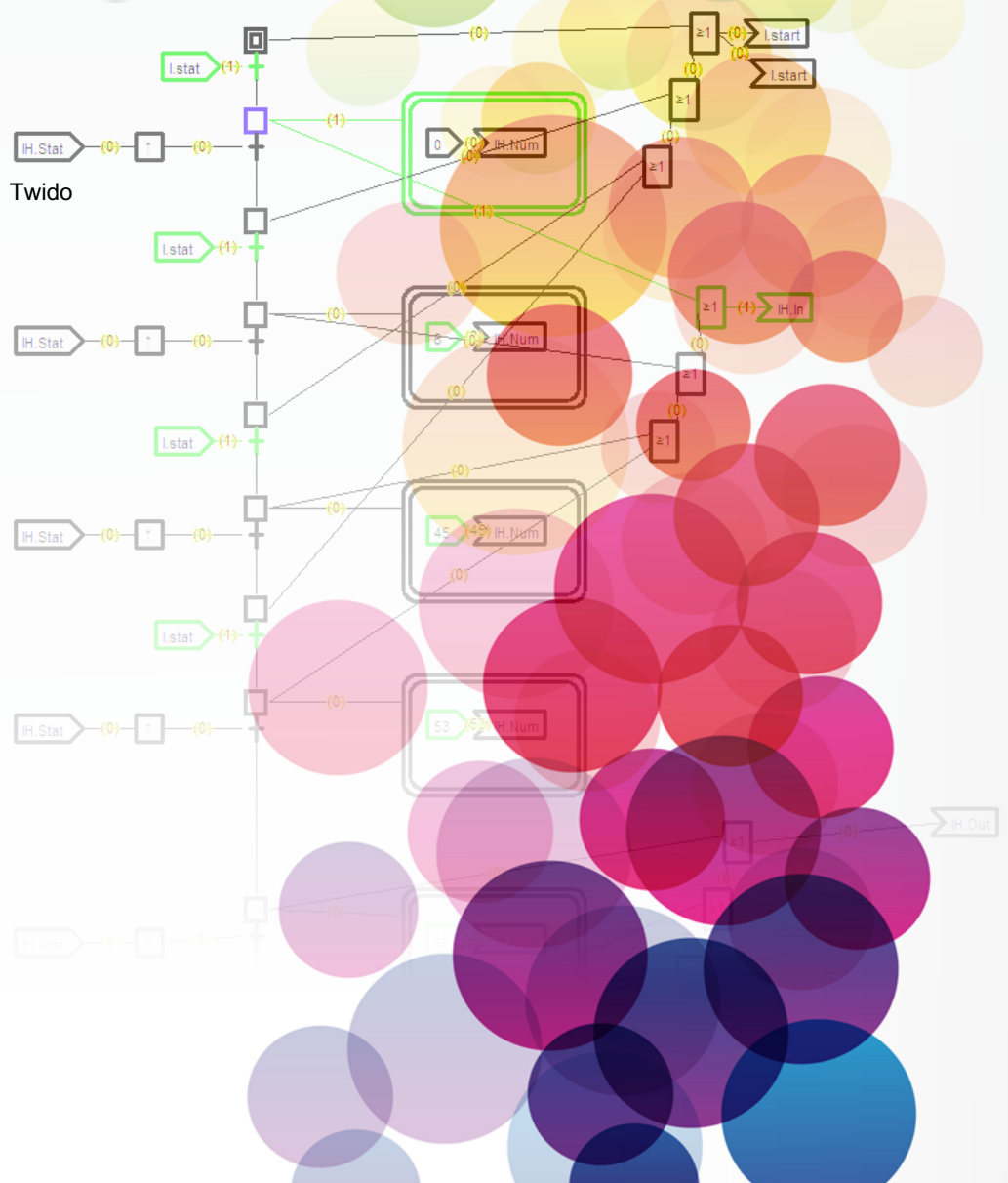


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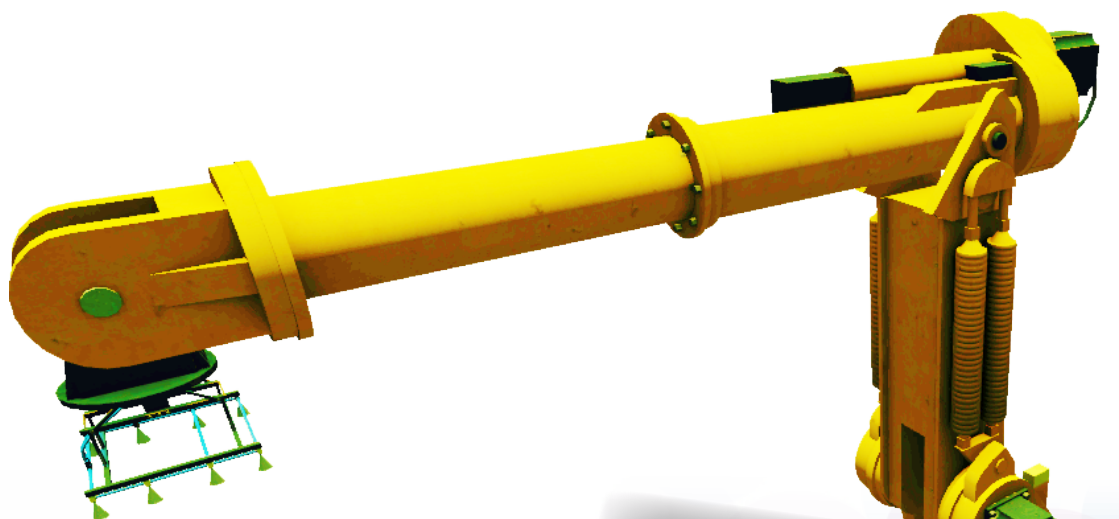
Siemens S7 IP, MPI, PPI  
 Siemens S5  
 Schneider Electric TSX, SoMachine, Twido  
 Beckhoff  
 Mitsubishi  
 Rockwell Ethernet IP  
 CodeSys PLCs compatibles  
 Automgen targets (Eg. Arduino)  
 Modbus TCP, SLMP, OPC

**\*\***

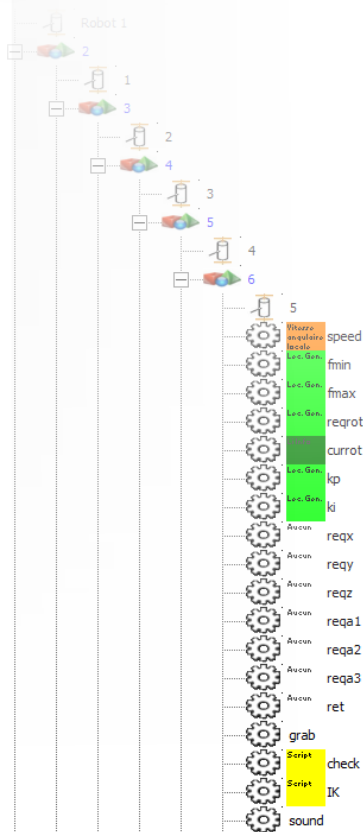
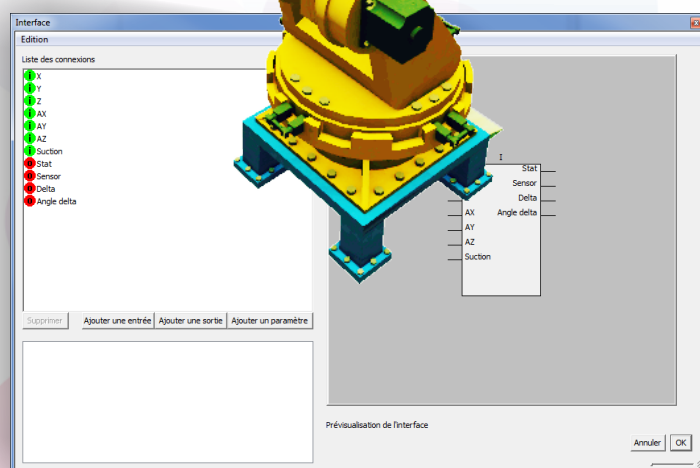
Siemens PlcSim  
 Schneider Unity  
 Schneider SoMachine  
 Mitsubishi Gx-Simulator  
 Mhj WinSps  
 CodeSys  
 Omron Cx-Simulator  
 Rockwell SoftLogix  
 Automgen (all compatible targets)  
 Matlab Simulink  
 Labview  
 Proteus  
 all software or programming tools  
 dll, ip, universal memory access



About fifteen ready-to-use examples illustrate the use of the library objects.



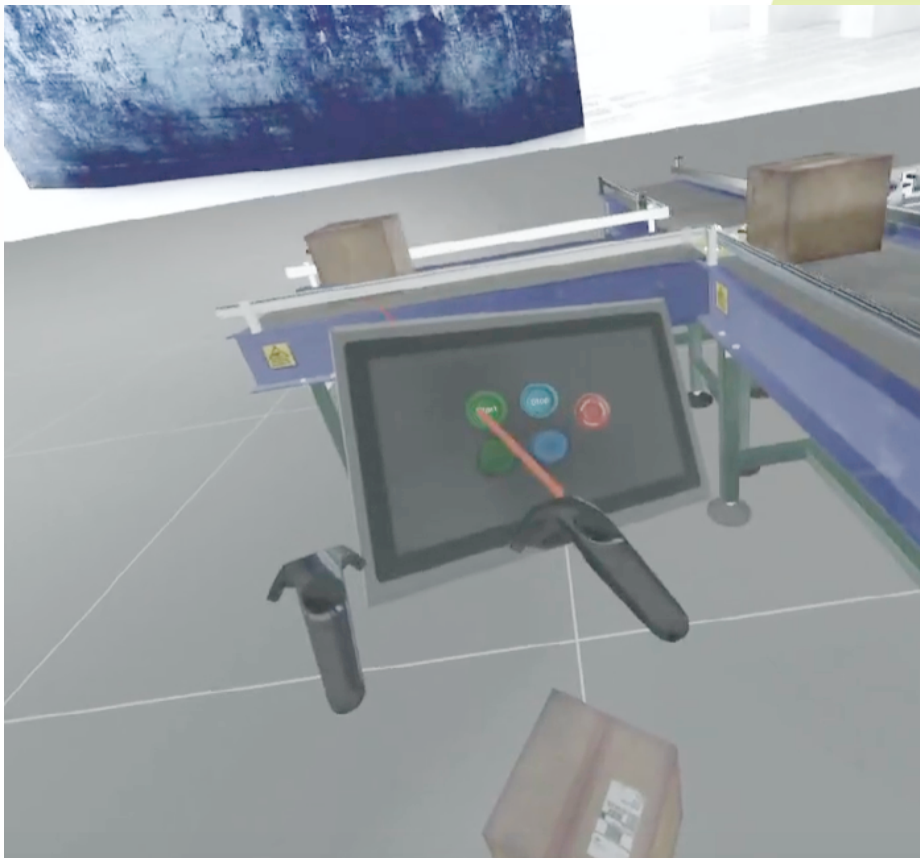
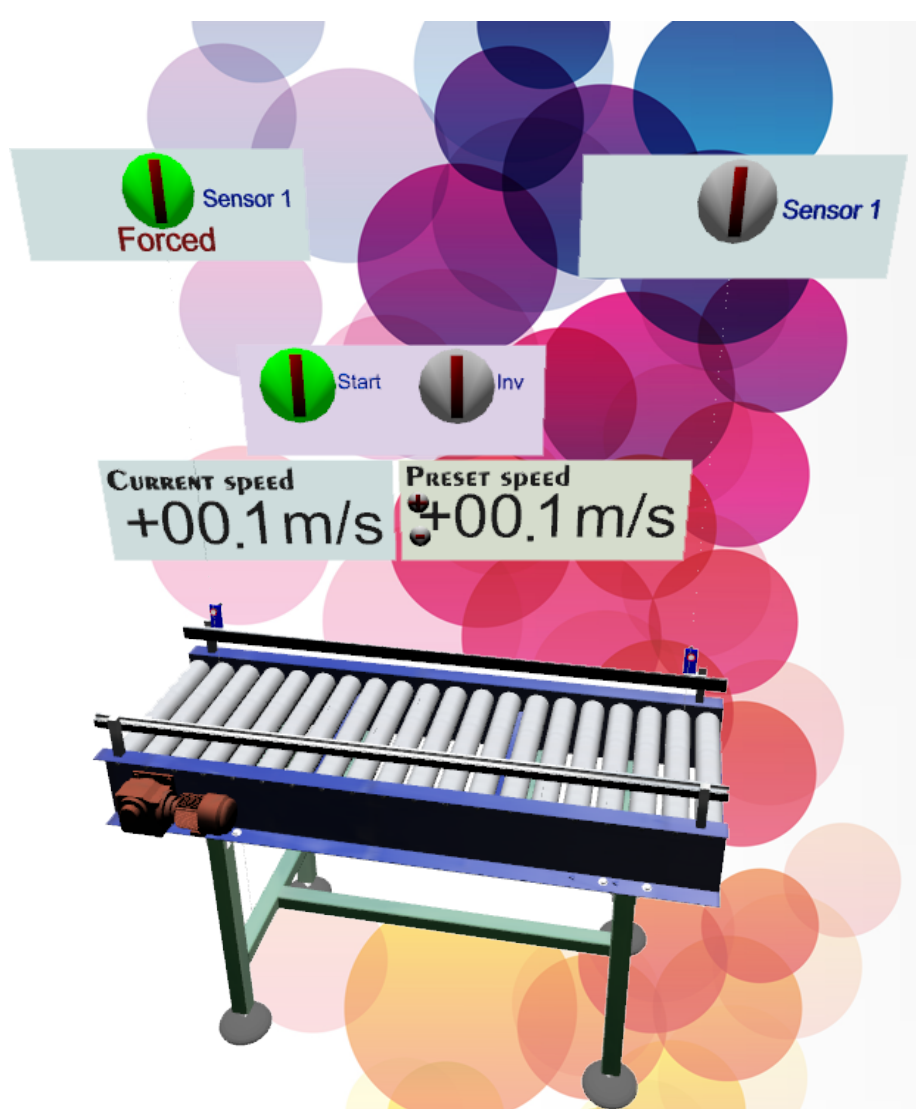
For each object, an optimized interface composed of inputs, outputs and parameters makes it easy to control the object from an automation program.



The configuration of each object is accessible and editable, this allows you to redefine the characteristics of the objects of the library and to understand how to create your own objects. You can also mix library objects with your own creations created from your usual CAD\* software.

\*import from Solidworks, Catia, Solid Edge, Inventor, etc. is available with the STANDARD and ULTIMATE versions of Virtual Universe Pro

Control panels are used to drive the objects manually and to observe the various associated states. They have the dual purpose of being able to test the functioning of the objects before realizing the program that will use them and also to simulate failures.



All the library objects are compatible with the use of a virtual reality headset. The controllers associated with the vr headset allow a full immersion and interaction.



# Specifications

## Development Operating System\*

Windows 7  
Windows 8  
Windows 10

## PC Configuration

Nvidia GTX 980 equivalent or higher  
Intel Core I5 or higher  
4 Gb ram or higher

## Licence

standalone soft code  
or floating license  
or web license

## VR

Oculus Rift headset  
Htc Vive headset, controllers and trackers  
Mixed reality headsets and controllers  
Leap Motion  
All Steam VR compatible systems

## AR

Microsoft Hololens  
Android devices

## CAD Import Formats

DS Solidworks\*\*  
DS Catia  
Autodesk Inventor  
Siemens Solid Edge

## Import from 3D files

3DXML, OBJ, 3DS, FBX  
X, VRML, STL, DXF, SKP

## Physic engines

Newton Dynamics  
Nvidia Physix  
Chrono Engine

## Rendering

Realtime, HQ, PBR, Unity 3d

## Web Player

WebGI  
IE, Chrome, Firefox, Safari

## Collaborative cloud simulation

Server on Windows  
Web clients on PCs  
Web clients on mobile devices  
Web clients on Macs  
Clients on Windows + VR Headsets

## Intergated Simulation Tools

Pneumatic  
Hydraulic  
Electric  
Digital Electronic  
Schematic Blocks (Simulink)

## Direct PLCs Connections

Siemens S7 IP, MPI, PPI  
Siemens S5  
Schneider TSX, SoMachine compatible PLCs,  
Unity compatibles PLCs, Twido  
Beckhoff  
Mitsubishi  
Rockwell Ethernet IP  
CodeSys PLCs compatible  
Automgen compatible target (Eg. Arduino)  
I/O connection with Advantech cards

## PLC protocols

Modbus TCP, SLMP, OPC

## PLC simulators interface

Siemens PlcSim  
Schneider Unity  
Schneider SoMachine  
Mhj WinSps  
CodeSys  
Omron Cx-Simulator  
Rockwell SoftLogix  
Mitsubishi Gx-Simulator

## Software connections

Automgen (all compatible targets)  
Matlab Simulink  
Labview  
Proteus  
ABB Robotstudio  
Mitsubishi RT-Toolbox2  
mBlock  
all softwares or programing tools  
dll, ip, universal memory access

## Integrated programing tools

Ladder  
Grafcet  
Function blocks  
Script (Basic)  
C language  
Python  
iScratch (Mit Scratch like language)

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\* 32 or 64 bits

\*\* ability to import constraints